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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Livia Polanyi

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SUGHRUE MION, PLLC

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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,420

Applicant(s)

POLANYI ET AL.

Examiner

Angela A. Armstrong

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-5, 14-18, and 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Fiedorowicz et al (US Patent No. 6,544,039).
2. Regarding claim 1, Fiedorowicz discloses a computer-based method of providing reading instruction to a student, which teaches a method of dynamic personalized reading instruction (col. 4, line 1 to col. 6, line 21) comprising the steps of: determining a first word recognition level of a user (col. 4, lines 5-10); displaying words to the user based on the determined first word recognition level from a set of words classified by word recognition levels (col. 4, line 5 to col. 5, line 14); providing at least one comprehension aid to the user, the provided comprehension aid operable to help the user to comprehend the displayed words (col. 5, lines 15-67); determining word recognition errors based on user comprehension of a word using at least one comprehension aid provided to the user (col. 4, line 5 to col. 5, line 14); determining a second word recognition level of the user based on the determined word recognition errors (col. 4, line 5 to col. 5, line 14).

Art Unit: 2626

Regarding claim 2, Fiedorowicz discloses the first word recognition level is determined based on at least one of age; scholastic grade and level within the grade, and an interactive test sequence (col. 4, lines 5-10).

Regarding claim 3, Fiedorowicz discloses at least one of a set of words in the set of words classified by word recognition level is associated with a comprehension aid (col. 5, lines 62-67).

Regarding claim 4, Fiedorowicz discloses the comprehension aid is a human sensible explanation of the concept of at least one classified word (col. 5, lines 62-67).

Regarding claim 5, Fiedorowicz discloses the human sensible explanation of the concept is at least one of: a graphic icon, an animation, audio information and video information (col. 6, lines 1-8).

3. Regarding claims 14-18 and 28-30, claims 14-18 and 28-30 are similar in scope and content to method claims 1-5 and are therefore rejected under similar rationale.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 6-12 and 19-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein et al (U.S. Patent 6,366,759 B1) in view of Fiedorowicz et al (US Patent No. 6,544,039).

Art Unit: 2626

5. Regarding claims 6, 9-12, 19 and 22-25 as understood by the Examiner, Burstein et al, with the invention for computer-based automatic essay scoring, read on the features of dynamic personalized reading instruction as follows: - Burstein et al read on the step of determining a text (essay, in column 7 lines 1-3); - Burstein et al teach the step of analyzing the text based on a theory of discourse analysis (column 1 lines 59-64); - Burstein et al read on the step of determining a 1 first user reading level (i.e., class in column 7 lines 7-9); Burstein et al teach on the step of displaying a grammatical tunable text summary (using grammar checker variables column 2 lines 20-28) based on the determined reading level (i.e., essay scoring in column 2 lines 38-43);

Burstein does not teach determining user comprehension of the text using at least one comprehension aid provided to the user and determining a further reading level based on the user comprehension and reading level. Fiedorowicz discloses a computer-based method of providing reading instruction to a student, which teaches a method of dynamic personalized reading instruction (col. 4, line 1 to col. 6, line 21) comprising the steps of: determining a first word recognition level of a user (col. 4, lines 5-10); displaying words based on the determined first word recognition level from a set of words classified by word recognition levels (col. 4, line 5 to col. 5, line 14); providing at least one comprehension aid to the user, the provided comprehension aid operable to help the user to comprehend the displayed words (col. 5, lines 15-67); determining word recognition errors based on user comprehension of a word using at least one comprehension aid provided to the user (col. 4, line 5 to col. 5, line 14); determining a second word recognition level of the user based on the determined word recognition errors (col. 4, line 5 to col. 5, line 14).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the system of Burstein to provide for comprehension exercises to the user, as suggested by Fiedorowicz, for the purpose of improving the students comprehension abilities and reading vocabulary.

Regarding claims 7 and 20, the claims are set forth with the same limitations as claims 6 and 19, respectively. Burstein do not speak to displaying salient information. Fiedorowicz reads on the step of displaying salient information from the grammatical tunable text summary based on at least one of. - a user request determined reading speed, and determined comprehension level (col. 4, line 5 to col. 5, line 14). It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Fiedorowicz to the device/method of Burstein et al so that suggestions agree with the criteria that was used to decide the need for further display.

Regarding claims 8 and 21; the claims are set forth with the same limitations as claims 7 and 19, respectively. Burstein et al teach the feature where the text is analyzed based on the Discourse Structures Theory, Linguistic Discourse Model, Rhetorical Structure Theory (column 1 line 57), Systemic Functional Grammar, or Tagmemics.

6. Regarding claims 27, 29 and 31, claims 27, 29, and 31 are similar in scope and content to claims 6-12 and 19-25, and are therefore rejected under similar rationale.

Art Unit: 2626

7. Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlgren et al (US Patent No. 4,456,973) in view of Burstein et al and further in view of Fiedorowicz.

8. Regarding claims 13 and 26, Carlgren et al read on the features of the claim for combined word and sentence level dynamic personalized reading instruction as follows: Carlgren et al further read on the feature of word level dynamic personalized instruction (column 3 line 41) and a controller (column 3 line 37); a memory for storing words (column 2 line 23), comprehension aids classified by word recognition levels and a text (column 1 lines 30-37); Carlgren et al further read on the feature of a word recognition level determining circuit for determining a word recognition level (column 1 lines 36-37) and a word display circuit for displaying words from the stored words based on the determined word recognition level (column 1 line 40).

Carlgren does not teach using at least one comprehension aid provided to the user to determine user recognition errors or adjusting word recognition based on errors. Fiedorowicz discloses a computer-based method of providing reading instruction to a student, which teaches a method of dynamic personalized reading instruction (col. 4, line 1 to col. 6, line 21) comprising the steps of: determining a first word recognition level of a user (col. 4, lines 5-10); displaying words based on the determined first word recognition level from a set of words classified by word recognition levels (col. 4, line 5 to col. 5, line 14); providing at least one comprehension aid to the user, the provided comprehension aid operable to help the user to comprehend the displayed words (col. 5, lines 15-67); determining word recognition errors based on user comprehension of a word using at least one comprehension aid provided to the user (col. 4, line 5

Art Unit: 2626

to col. 5, line 14); determining a second word recognition level of the user based on the determined word recognition errors (col. 4, line 5 to col. 5, line 14).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the system of Calgren to provide for comprehension exercises to the user, as suggested by Fiedorowicz, for the purpose of improving the students comprehension abilities and reading vocabulary.

Carlgren et al teach the feature of sentence level dynamic personalized instruction circuit (column 1 lines 19-24); an input/output circuit for loading a selected text into the memory (column 2 lines 23-24) but does not stipulate discourse analysis. Burstein et al teach the feature of a discourse analysis circuit for analyzing the text (column 1 lines 59-64) and on the feature of a grammatical tunable text summary generating circuit for determining a grammatical tunable text summary of the analyzed text (using grammar checker variables column 2 lines 20-28); It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Calgren to provide for comprehension exercises to the user based on discourse analysis of the text, as suggested by Burstein, for the purpose of improving the students comprehension abilities and reading vocabulary.

Carlgren read on the feature of a text determining circuit for determining display text based on a determined reading level information (column 1 lines 36-37 & 40).

Calgren does not specifically teach interactive questioning. Fiedorowicz discloses a computer-based method of providing reading instruction to a student, which teaches a method of dynamic personalized reading instruction (col. 4, line 1 to col. 6, line 21) comprising the steps of: determining a first word recognition level of a user (col. 4, lines 5-10); displaying words based

Art Unit: 2626

on the determined first word recognition level from a set of words classified by word recognition levels (col. 4, line 5 to col. 5, line 14); providing at least one comprehension aid to the user, the provided comprehension aid operable to help the user to comprehend the displayed words (col. 5, lines 15-67); determining word recognition errors based on user comprehension of a word using at least one comprehension aid provided to the user (col. 4, line 5 to col. 5, line 14); determining a second word recognition level of the user based on the determined word recognition errors (col. 4, line 5 to col. 5, line 14).

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Fiedorowicz to the device/method of Carlgren so as to monitor the dialogue to be within the parameters of the using audience.

Response to Arguments

Applicant's arguments filed June 27, 2006 have been fully considered but they are not persuasive.

Regarding claims 1-5, 14-18, and 28-30, Applicant argues Fiedorowicz does not teach determining the first word recognition level. The Examiner cannot concur. Fiedorowicz specifically teaches determining word recognition level at col. 4, lines 5-10, since reading skills incorporate word recognition (word recognition is required to read). Further, page 7, paragraph 0016 of applicant's specification specifically indicates the word recognition level can be determined based on the grade and level within in the grade of the user.

Applicant argues Fiedorowicz fails to teach or suggest providing a comprehension aid to the user; determining word recognition errors based on user comprehension of the displayed words using the comprehension and determining a second word recognition level of the user based on the determined word recognition errors. The Examiner cannot concur. Fiedorowicz discloses providing a comprehension aid to the user (col. 5, lines 15-67); determining word recognition errors based on user comprehension of the displayed words using the comprehension at col. 4, line 65 to col. 5, line 14, as the system requires for the user to complete any exercise, the exercise must be mastered with a substantial level of accuracy, which provides support for determining word recognition errors; and determining a second word recognition level of the user based on the determined word recognition errors at col. 4, lines 45-48 as each exercise represents incremental steps forward on a continuum of reading skill development and in order to complete one exercise to go to the next level of skill development, the user must master the exercise with a required level of accuracy, which necessarily requires a determination of word recognition errors.

Regarding claims 6-12, 19-25, 27, 29, and 31, Applicant argues claims 6 and 19 are patentable over Burstein and Fiedorowicz and argues that Burstein fails to teach determining a user reading level. The Examiner cannot concur. Burstein teachings of the user's application of certain vocabulary words or content words, indicates a level of user's comprehension of the words, which effects the user's reading level. Additionally, Fiedorowicz specifically teaches determining word recognition level at col. 4, lines 5-10, since reading skills incorporate word recognition (word recognition is required to read).

Applicant argues Burstein fails to teach or suggest displaying to the user a grammatical tunable text summary. Burstein teaches grammar checker variables provide information about the writing competency of the user, which provides support for a text summary based on the user's word comprehension or reading level.

Regarding claims 13 and 26, Applicant argues Fiedorowicz does not teach determining the first word recognition level. The Examiner cannot concur. Fiedorowicz specifically teaches determining word recognition level at col. 4, lines 5-10, since reading skills incorporate word recognition (word recognition is required to read). Further, page 7, paragraph 0016 of applicant's specification specifically indicates the word recognition level can be determined based on the grade and level within in the grade of the user.

Applicant argues Fiedorowicz fails to teach or suggest providing a comprehension aid to the user; determining word recognition errors based on user comprehension of the displayed words using the comprehension and determining a second word recognition level of the user based on the determined word recognition errors. The Examiner cannot concur. Fiedorowicz discloses providing a comprehension aid to the user (col. 5, lines 15-67); determining word recognition errors based on user comprehension of the displayed words using the comprehension at col. 4, line 65 to col. 5, line 14, as the system requires for the user to complete any exercise, the exercise must be mastered with a substantial level of accuracy, which provides support for determining word recognition errors; and determining a second word recognition level of the user based on the determined word recognition errors at col. 4, lines 45-48 as each exercise represents incremental steps forward on a continuum of reading skill development and in order to complete one exercise to go to the next level of skill development, the user must master the

Art Unit: 2626

exercise with a required level or accuracy, which necessarily requires a determination of word recognition errors. Applicant argues claims 13 and 26 are patentable over Burstein and Fiedorowicz and argues that Burstein fails to teach determining a user reading level. The Examiner cannot concur. Burstein teachings of the user's application of certain vocabulary words or content words, indicates a level of user's comprehension of the words, which effects the user's reading level. Additionally, Fiedorowicz specifically teaches determining word recognition level at col. 4, lines 5-10, since reading skills incorporate word recognition (word recognition is required to read).

Applicant argues Burstein fails to teach or suggest displaying to the user a grammatical tunable text summary. Burstein teaches grammar checker variables provide information about the writing competency of the user, which provides support for a text summary based on the user's word comprehension or reading level.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2626

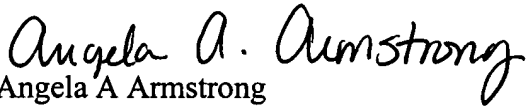
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598.

The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Angela A Armstrong
Primary Examiner
Art Unit 2626

AAA
September 15, 2006